



Where Quality Is A Lifestyle

October 8, 2012

BID #854

Gentlemen:

Fayette County, Georgia is seeking bids from qualified contractors for the installation of centrifugally cast concrete pipe. You are invited to submit a bid in accordance with the specifications and information contained herein. Descriptive literature and all other required information shall be included with your bid. Any exceptions to the specifications shall be listed in the space provided.

A pre-bid conference will be held at 10:00am on Wednesday, October 17, 2012 starting at Southern Crescent Church of Christ parking lot nearest road, 315 Dogwood Trail in Tyrone, GA for the above referenced invitation for bids. All bidders and interested parties are invited and strongly urged to attend. This will be the opportunity to voice all questions, concerns and comments about this invitation for bids and have them addressed. It is important that you attend.

All questions and inquiries concerning this invitation for bids or the specifications shall be addressed to Trina Barwicks, Contract Administrator of Purchasing, 140 Stonewall Avenue West, Fayetteville, Georgia 30214 from 8:00 a.m. to 5:00 p.m. The telephone number is (770) 305-5420 or email address tbarwicks@fayettecountygga.gov. Any deviations from this procedure for questions or information pertaining to this invitation for bids may result in your bid being rejected.

If you do not submit a bid, please indicate in writing your reason(s) why and return that information to the Purchasing Department. Failure to do so may cause your company's name to be removed from the bidders list, as the information is needed for our files.

Your bid should be on the attached pricing sheet. All prices shall be F.O.B. Destination, Fayette County. Be sure to include the **bid number** and **reference** along with your company's name and address on the **sealed** envelope in which the bid is returned.

**BID MUST BE SUBMITTED TO:
FAYETTE COUNTY PURCHASING DEPARTMENT
140 STONEWALL AVENUE WEST - SUITE 101
FAYETTEVILLE, GEORGIA 30214
BID #854
REFERENCE: CENTRIFUGALLY PIPE INSTALLATION**

Bids will be received at the above address until 3:00 p.m., Thursday, October 25, 2012 in the Purchasing Department, Suite 101. Bids will be opened at approximately 3:00 p.m. October 25, 2012. Bids must be signed to be considered. Late bids will not be considered. Faxed bids will not be considered.

If this invitation for bids is downloaded from our web site, it is the responsibility of the individual or company that downloads this invitation for bids to continue to check the Fayette County web site for any addenda that might come out for this invitation for bids and is posted on the Fayette County web site. Fayette County shall not be responsible for any information that any individual or company fails to get in an addendum that is posted on the Fayette County web site but is not downloaded. However, if the Fayette County Purchasing Department mails the invitation for bids to a company or individual, we will keep a record of who we mailed that invitation for bids to and all addenda for that invitation for bids will also be mailed to those companies or individuals.

Bids will be posted on the Fayette County web site within 3 business days after the bid opening.

There is no set time for an award to be made, as the bids have to be evaluated and a recommendation has to be prepared and then scheduled to go before the Board of Commissioners for consideration by the Board. If an award is not made within 45 days of the bid opening, an update will be posted on the Fayette County website.

If the Board awards this bid, once everything has been received by that company and the award has been completed, that information will also be posted on the Fayette County website. Please keep this procedure in mind.

The County reserves the right to reject or accept any or all bids and to waive technicalities, informalities, and minor irregularities in bids received.

Sincerely,



Ted L. Burgess
Director of Purchasing

TLB/tcb

GENERAL TERMS AND CONDITIONS

1. **Definitions:** The term "contractor" as used herein and elsewhere in these specifications shall be used synonymously with the term "successful bidder." The term "county" shall mean Fayette County, Georgia
2. **Bid is Offer to Contract:** Each bid constitutes an offer to become legally bound to a contract with the county, incorporating the invitation to bid and the bidder's bid. The binding offer includes compliance with all terms, conditions, special conditions, specifications, and requirements stated in the invitation to bid, except to the extent that a bidder takes written exception to such provisions. All such terms, conditions, special conditions, specifications, and requirements will form the basis of the contract. The bidder should take care to answer all questions and provide all requested information, and to note any exceptions in the bid submission. Failure to observe any of the instructions or conditions in this invitation to bid may result in rejection of the bid.
3. **Binding Offer:** Each bid shall constitute a firm offer that is binding for ninety (90) days from the date of the bid opening, unless the bidder takes exception to this provision in writing.
4. **Bidder's Questions:** The Fayette County Purchasing Department must receive questions about this invitation to bid in writing at least three (3) days before the scheduled bid opening. The county will post answers to questions and/or other information concerning the invitation to bid in the form of an addendum on the county's website at www.fayettecountyga.gov. It is the responsibility of the prospective bidder to check the website for any addenda issued for this invitation to bid.
5. **References:** Include with your bid a list of three (3) jobs that your company has done that are of the same or similar nature to the work described in this invitation to bid, on the form provided. Include all information as requested on the form.
6. **Bid Submission:** Submit your bid, along with any addenda issued by the county, in a sealed opaque envelope with the following information written on the outside of the envelope:
 - a. The bidder's company name,
 - b. The bid number, which can be found in the cover letter to the invitation to bid document or on the web site, and
 - c. The "reference" which identifies the bid, which can be found in the cover letter or the web site.

Mail or deliver one (1) unbound original bid (paperclip or binder clip acceptable), signed in ink by a company official authorized to make a legal and binding offer, to:

Fayette County Government
Purchasing Department
140 Stonewall Avenue West, Suite 101
Fayetteville, GA 30214

Attention: Contracts Administrator

You may submit bids in person, by U.S. mail, or by a commercial carrier. Do not submit bids by facsimile, e-mail, or other electronic means. Once submitted, all bids become the property of Fayette County.

7. **Bid Preparation Costs:** The bidder shall bear all costs associated with preparing the bid.
8. **Late Bids:** Bids not received by the time and date of the scheduled bid opening will not be considered, unless the delay is a result of action or inaction by the county.
9. **Alternate Bids:** Do not submit alternate bids or options, unless requested or authorized by the county in the Invitation to Bid. If a responder submits more than one bid without being requested or authorized to do so, the county may disqualify the bids from that responder, at the county's option.
10. **Bid Corrections or Withdrawals:** The bidder may correct a mistake, or withdraw a bid, before the bid opening by sending written notification to the Director of Purchasing. Bids may be withdrawn after the bid opening only with written authorization from the Director of Purchasing.
11. **Defects or Irregularities in Bids:** The county reserves the right to waive any defect or irregularity in any bid

received. In case of an error in extension of prices or totals in the bid, the unit prices shall govern.

12. **Prices Held Firm:** Prices quoted shall be firm for the period of the contract, unless otherwise specified in the bid. All prices for commodities, supplies, equipment, or other products shall be quoted FOB Destination, Fayette County or job site.
13. **Non-Collusion:** By responding to this invitation to bid, the bidder represents that the bid is not made in connection with any competing bidder, supplier, or service provider submitting a separate response to this invitation to bid, and is in all respects fair and without collusion or fraud.
14. **Arrears:** Bids will not be accepted from any person, firm, or corporation who is in arrears in any debt or obligation to Fayette County.
15. **Bid Evaluation:** Award will be made to the lowest responsive, responsible bidder, taking into consideration payment terms, vendor qualifications and experience, quality, references, any exceptions listed, and/or other factors deemed relevant in making the award. The county may make such investigation as it deems necessary to determine the ability of the bidder to perform, and the bidder shall furnish to the county all information and data for this purpose as the county may request. The county reserves the right to reject any bid item, any bid, or all bids, and to re-advertise for bids.
16. **Partial Award:** The county reserves the right to make award by item, by group of items, by any combination of items, or by lump sum award. The award will be made in the best interest of the county. Bidders may restrict their bids to consideration of a lump sum award or other restriction only by so indicating on the pricing sheet or the "Exceptions to Specifications" sheet included in the invitation to bid. Bidders who do not restrict consideration of their bids in this manner shall be expected to accept any portion of the bid awarded. The county reserves the right to award multiple contracts for the products or services sought by this invitation to bid.
17. **Secondary Contracts:** The County may award a secondary contract to the responsive, responsible bidder making the second lowest bid. Considerations in selecting a secondary contract will be the same as for the primary contract.
18. **Discounts:** Cash discounts offered will be a consideration in awarding the bid, but only if they give the county at least 15 days from receipt of invoice to pay. For taking discounts, time will be computed from the date of acceptance at destination or the date a correct invoice is received, whichever is the later date. Payment is deemed made, for the purpose of earning the discount, on the date of the check. For payment of full invoice price, minimum terms of net 30 are preferred.
19. **Trade Secrets - Confidentiality:** A bid is a public record, except for material which qualifies as trade secret information. To keep this information confidential, a bidder must submit trade secret materials in a separate, sealed envelope marked "Trade Secret – Confidential and Proprietary Information – Do Not Disclose Except for the Purpose of Evaluating this Bid." Each page in the envelope should be stamped or otherwise marked designating it as trade secrets or confidential. Do not attempt to designate the entire bid as a trade secret, and do not attempt to designate pricing information as a trade secret, as doing so may result in your bid being disqualified. See O.C.G.A. 50-18-72 as amended by 2012 H.B. 397 for specific Georgia law on this subject.
20. **Trade Secrets – Internal Use:** In submitting a bid, the bidder agrees that the county may reveal any trade secret materials contained in the bid to all county staff and officials involved in the selection process, and to any outside consultant or other third parties who may assist in the selection process. The bidder agrees to hold harmless the county and each of its officers, employees, and agents from all costs, damages, and expenses incurred in connection with refusing to disclose any material which the bidder has designated as a trade secret.
21. **Patent Indemnity:** The contractor guarantees to save the county, its agents, officers, or employees harmless from liability of any nature or kind for use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, articles or appliances furnished or used in the performance of the contract, for which the contractor is not the patentee, assignee or licensee.
22. **Contract Execution & Notice to Proceed:** After the Board of Commissioners makes an award, all required documents are received by the county, and the contract is fully executed with signature of both parties, the county will issue a written Notice to Proceed. The county shall not be liable for payment of any work done or any costs incurred by any bidder prior to the county issuing the Notice to Proceed.

23. **Unauthorized Performance:** The county will not compensate the contractor for work performed unless the work is authorized under the contract, as initially executed or as amended.
24. **Assignment of Contract:** Assignment of any contract resulting from this invitation to bid will not be authorized.
25. **Severability:** The invalidity of one or more of the phrases, sentences, clauses or sections contained in the contract shall not affect the validity of the remaining portion of the contract. If any provision of the contract is held to be unenforceable, then both parties shall be relieved of all obligations arising under such provision to the extent that the provision is unenforceable. In such case, the contract shall be deemed amended to the extent necessary to make it enforceable while preserving its intent.
26. **Delivery Failures:** If the contractor fails to deliver contracted goods or services within the time specified in the contract, or fails to replace rejected items in a timely manner, the county shall have authority to make open-market purchases of comparable goods or services. The county shall have the right to invoice the contractor for any excess expenses incurred, or deduct such amount from monies owed the contractor. Such purchases shall be deducted from contracted quantities.
27. **Termination for Cause:** The county may terminate the contract for cause by sending written notice to the contractor of the contractor's default in the performance of any term of this agreement. Termination shall be without prejudice to any of the county's rights or remedies by law.
28. **Termination for Convenience:** The county may terminate the contract for its convenience at any time with 30 days' written notice to the contractor. In the event of termination for convenience, the county will pay the contractor for services performed. The county will compensate partially completed performance based upon a signed statement of completion submitted by the contractor, which shall itemize each element of performance completed.

SPECIAL TERMS AND CONDITIONS

1. **Bid Bond:** If your bid is over \$100,000 you must include a bid bond equal to five percent (5%) of the total amount bid. Bid bonds shall be provided by a surety which appears on Georgia's list of approved sureties administered by the State Insurance Commissioner, or the U.S. Treasury's list of approved bond sureties (Circular 570).
2. **Performance and Payment Bonds:** Bids shall include a letter stating that the bidder can and will provide performance and payment bonds, each equal to 100 percent of the contract value, upon being awarded the contract. Prior to execution of any contract with total value over \$100,000, the successful bidder shall submit the bonds to the county, provided by a surety which appears on Georgia's list of approved sureties administered by the State Insurance Commissioner, or the U.S. Treasury's list of approved bond sureties (Circular 570).
3. **Insurance:** The successful bidder shall, without expense to the county, carry the following insurance, to be in effect throughout the term of the contract, in at least the amounts and limits as follows:
 - a. **General Liability Insurance:** \$1,000,000 combined single limit per occurrence, including bodily and personal injury, destruction of property, and contractual liability.
 - b. **Automobile Liability Insurance:** \$1,000,000 combined single limit each occurrence, including bodily injury and property damage liability.
 - c. **Worker's Compensation & Employer's Liability Insurance:** Workers Compensation as required by Georgia statute.

Before a contract with the successful bidder is executed, the successful bidder shall provide Certificates of Insurance for all required coverage. The certificate shall list an additional insured as follows:

Fayette County Board of Commissioners
140 Stonewall Avenue West
Fayetteville, GA 30214

4. **Indemnification:** The successful bidder shall defend and indemnify the county and all its officers, agents and employees against any suits, actions, or other claims brought on account of any injuries or damages to any person, persons, or property resulting from any negligent act or fault of the successful bidder, or of any agent, employee, subcontractor or supplier in the performance of any contract which may be awarded. The successful bidder shall pay any judgment with cost which may be obtained against the county growing out of such injury or damages.
5. **Brand Name:** If items in this invitation for bid have been identified, described or referenced by a brand name or trade name description, such identification is intended to be descriptive, but not restrictive and is to indicate the quality and characteristics of products that may be offered. Alternative products may be considered for award if clearly identified in the bid. Items offered must meet required specifications and must be of a quality which will adequately serve the use and purpose for which intended.
6. **Bidder Substitutions:** Bidders offering substitutions or deviations from specifications stated in the invitation to bid, shall list such substitutions or deviations on the "Exceptions to Specifications" sheet provided, or on a separate sheet to be submitted with the bid. The absence of such list shall indicate that the bidder has taken no exception to the specifications. The evaluation of bids and the determination as to equality and acceptability of products or services offered shall be the responsibility of the county.
7. **Samples:** When the county requires samples as part of the bid and vendor selection process, bidders must provide requested samples within the time allotted, and at no cost to the county unless otherwise specified. Any goods provided under contract shall conform to the sample submitted. The county will return samples only at the bidder's request, and at the bidder's expense, if they are not destroyed by testing.
8. **Inspection and Acceptance of Deliveries:** The county reserves the right to inspect all goods and products delivered. The county will decide whether to accept or reject items delivered. The inspection shall be conclusive except with respect to latent defects, fraud, or such gross mistakes as shall amount to fraud. Final inspection resulting in acceptance or rejection of the products will be made as soon as practicable, but failure to inspect shall not be construed as a waiver by the county to claim reimbursement or damages for such products which are later found to be in non-conformance with specifications. Should public necessity demand it, the county reserves the right to use or consume articles delivered which are substandard in quality, subject to an adjustment in price to be determined by the Purchasing Director.

**Bidder's Affidavit
Of Compliance with the Georgia Security and Immigration Compliance Act**

By executing this affidavit, the undersigned bidder verifies its compliance with O.C.G.A. 1310-91, stating affirmatively that the individual, firm or corporation which is bidding to contract with Fayette County has registered with, and is authorized to use, the federal work authorization verification program [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603].

The undersigned bidder agrees that it is using, and will continue to use, the federal work authorization program throughout the contract period.

The undersigned bidder further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services pursuant to this proposed contract with Fayette County, bidder will secure from such contractor(s) similar verification of compliance with O.C.G.A. 13-10-91. Bidder further agrees to maintain records of such compliance and provide a copy of each such verification to Fayette County at the time the subcontractor(s) is retained to perform such service.

E-Verify or other User Identification Number

BY: Authorized Officer or Agent
(Bidder's Name)

Date

Title of Authorized Officer or Agent of Bidder

Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

_____ DAY OF _____, 20____

Notary Public
My Commission Expires:

Fayette County, Georgia
Checklist of Required Documents

(Please Return This Checklist with Your Bid)

Bid # 854 CENTRIFUGALLY PIPE INSTALLATION

Be sure to include with your bid or proposal:

- Bidder's Affidavit – *Ga. Security & Immigration Compliance Act* _____
- Bid bond _____
- Letter assuring
 - Performance bond _____
 - Payment bond _____
- Pricing sheet _____
- List of exceptions, if any – on the form provided _____
- Company information – on the form provided _____
- References – on form provided _____

COMPANY NAME: _____

CENTRIFUGALLY CAST CONCRETE PIPE (CCCP) OVERVIEW

1. Intent
2. Applicability
3. Referenced Standards
5. Invert Repair Mortar
6. Centrifugally Cast Concrete Pipe (CCCP)
7. Submittals
8. Product Handling
9. Quality Assurance and Acceptance
10. Measurement for Payment

CENTRIFUGALLY CAST CONCRETE PIPE (CCCP)

1. Intent: it is the intent of this specification to provide minimum standards for materials and methods for waterproofing, sealing, structural reinforcement and corrosion protection of existing concrete storm sewer pipe, concrete sanitary pipe and corrugated steel culvert pipe. The centrifugally cast concrete pipe (CCCP) should extend over the specified length in a continuous structural concrete pipe within a pipe. This specification offers flexibility in design by offering technologies available for repairing the various defects found in these structures.
2. Applicability: These repair means and methods may be engineered for the depth, diameter, shape, traffic loading, groundwater pressures and condition of each pipe segment.
3. Referenced Standards
 - 3.1 ASTM C-109 Standard Test Method for Compressive Strength of Hydraulic Cement Mortars
 - 3.2 ASTM C-157 Modified Standard Test Method for Length Change of Hardened Hydraulic Cement Mortar and Concrete
 - 3.3 ASTM C-293 Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Center-Point Loading)
 - 3.4 ASTM C-309 Standard Specifications for Liquid Membrane-Forming Compounds for Curing Concrete
 - 3.5 ASTM C-403 Standard Testing Method for Time of Setting of Concrete Mixtures by Penetration Resistance
 - 3.6 ASTM C-469 Standard Test method for Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression
 - 3.7 ASTM C-496 Standard Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens
 - 3.8 ASTM C-882 Standard Test Method for Bond Strength of Epoxy Systems Used with Concrete by Slant Shear
 - 3.9 ASTM C-1202 (AASHTO T 277 Equivalent) Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration
 - 3.10 ASTM C-666 Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
 - 3.11 ASTM D-4783 Standard Test Methods for Resistance of Adhesive Preparations in Container to Attack by Bacteria, Yeast, and Fungi (Modified)
- 4.1 Safety: The Local & Federal Safety regulations and Contractor shall carry out his operations in strict accordance with all applicable OSHA standards. Particular attention is drawn to those safety requirements involving entering confined space, local and Federal Safety regulations.
- 4.2 Flow Control: The Contractor, when required, shall provide for the flow of state waters around the section or sections of main storm pipe where the rehabilitation is located. The bypass shall be made by detouring and pumping the flow an adjacent system or similarly approved method. Pump and bypass lines shall be of adequate capacity to handle the flow.

- 4.3 TV Inspection: Inspection of pipelines shall be performed by experienced personnel trained in closed-circuit television. The interior of the pipeline shall be carefully inspected to determine the location of any conditions which may prevent proper installation, and it shall be noted so that these conditions can be corrected. A videotape/CD/DVD and log sheet shall be kept for later reference by the owner.
- 4.4 Obstruction Removal: It shall be the responsibility of the Contractor to clear the line of obstructions such as solids, dropped joints, roots, protruding lateral or collapsed pipe that will prevent installation. If inspection reveals an obstruction that cannot be removed by conventional storm pipe cleaning equipment, then the Contractor shall notify the owner. The owner may instruct the Contractor to make a point repair excavation to remove or repair the obstruction. Such excavation shall be approved in writing by the Owner's Representative prior to the commencement of the work and shall be considered as a separate pay item.
- 4.5 Infiltration Control: Areas of water seepage shall be sealed off by an approved method. Pools of water shall be removed; however, a dry surface is not required. The Contractor shall patch holes and fill voids in and around existing pipe as directed by the Engineer.
- 4.6 Cleaning: It shall be the responsibility of the Contractor to remove all debris from the storm water pipe. The interior surface shall be cleaned with a high-pressure water-blast sufficient to remove all laitance and loose material and flush debris from the pipe. Rusted portions of corrugated steel pipe should be removed or sand blasted to white metal coated with a epoxy rust protector.
5. Invert Repair Mortar
- 5.1 PL-12,000 Invert Repair Mortar
- 5.1.1 The material should be an ultra-high strength, high build, abrasion resistant and corrosion resistant mortar, based on advanced cements and additives including rust inhibitors. When mixed with the appropriate amount of water, a self consolidating free flowing material will develop with high 24 hour compressive strength and adhesive.
- 5.1.2 The hardened material is dense and highly impermeable. The above performance is achieved by a complex formulation of mineral, organic and densifying agents and sophisticated chemical admixtures. Graded quartz sands are used to enhance particle packing and further improve the fluidity and hardened density. The composition also possesses excellent thin-section toughness, high modulus of elasticity and self-bonding.
- 5.1.3 The water content may be adjusted to achieve consistencies ranging from free flowing to plastic. Despite its workability, the mortar has excellent we adhesion.
- 5.1.4 Physical Properties
- | | |
|------------------------------|---------------------------|
| Set time at 70 °F ASTM C-403 | |
| Initial Set | Approx. 1 hour 30 minutes |
| Final Set | Approx. 4 hours |
| Flexural Strength ASTM C-293 | |
| 24 hours | min. 800 psi |

28 days	min. 1200 psi
Compressive Strength ASTM C-109	
24 hours	5,000 psi
28 days	11,500 psi
Split Tensile Strength ASTM C-496	700 psi
Shear Bond ASTM C-882	1,720 psi
Modulus of Elasticity ASTM C-469	
28 days	min. 3.48
Freeze Thaw ASTM C-666	300 Cycle Pass
Chloride Permeability ASTM C-1202	<550 Coulombs

6. Centrifugally Cast Concrete pipe (CCCP)

6.1 PL-8,000 Pipe Lining Mortar

- 6.1.1 The material should be a high strength, high build, abrasion resistant and corrosion resistant mortar, based on advanced cements and additives. When mixed with the appropriate amount of water, a paste-like material will develop which may be sprayed, cast or pumped into any area ¼ inch and larger.
- 6.1.2 The hardened liner is dense and highly impermeable. The above performance is achieved by a complex formulation of mineral, organic and densifying agents and sophisticated chemical admixtures including rust inhibitor. Graded quartz sands are used to enhance particle packing and further improve the fluidity and hardened density. The composition also possesses excellent thin-section toughness, high modulus of elasticity and self-bonding. Fibers are added as an aid to casting, for increased cohesion and to enhance flexural strength.
- 6.1.3 The water content may be adjusted to achieve consistencies ranging from plastic to modeling dry. Despite its workability, the mortar has good wet adhesion and does not sag or run after placement. The mortar may be cast against soil, metals, wood, plastic or other construction material.

6.1.4 Physical Properties

Set time at 70 °F ASTM C-403	
Initial Set	Approx. 150 minutes
Final Set	Approx. 240 minutes
Flexural Strength ASTM C-293	
24 hours	min. 600 psi
28 days	min. 1,080 psi
Compressive Strength ASTM C-109	
24 hours	3,000 psi
28 days	8,000 psi
Split Tensile Strength ASTM C-496	682 psi
Shear Bond ASTM C-882	2,100 psi
Modulus of Elasticity ASTM C-469	

6.2 Design Criteria

- 6.2.1 Liner thickness shall be applied to the thickness specified by the engineer but no less than one inch or equivalent in strength, structure and integrity.
- 6.2.2 If additional thickness is desired at any section, simply place the rotating applicator at that section and recommence pumping and retrieval until that area is thickened. Additional layers may be applied at any time after initial set.

6.3 Centrifugally Cast Concrete Pipe (CCCP) Installation

- 6.3.1 Equipment: Mortar mixers, compressors and pumps are standard commercial models. The high-speed, rotating applicator device is used to provide a densely compacted liner of uniform thickness and thorough coverage.
- 6.3.2 Mixing: As directed by product manufacturer.
- 6.3.3 Application
 - 6.3.3.1 Position the rotating casting applicator within the center of the storm water pipe and commence pumping the mixed mortar. As the mortar begins to be centrifugally cast evenly around the interior, retrieve the applicator head at the best speed for applying the thickness that has been selected. If flows are interrupted for any reason, simply arrest the retrieval of the applicator head until flows are restored.
 - 6.3.3.2 The retrieval speed can be easily varied to create different thickness as the condition may indicate to provide sufficient strengths. Because of the even application throughout the circumference, thickness may be varied at any point.
 - 6.3.3.3 If additional the thickness is desired at any section, simply place the rotating applicator at that level and recommence pumping and retrieval until that area is thickened. Built-in bonding agents allow additional layers to be applied at anytime.
 - 6.3.3.4 The pressure application from the centrifugal casting of the mortar produces a finely textured surface that required no additional troweling or finishing
- 6.3.4 Hot Weather Application (Above 80° F)
 - 6.3.4.1 Do not apply mortars when ambient and surface temperatures are 100° F or 35° C and above. Shade the material and prepared the surface to keep it cool.

6.3.4.2 To extend working time, mix the material with cool water or ice-cooled water. Be certain the substrate is saturated surface-dry (SSD) before application begins.

6.3.4.3 Proper curing is always required and is particularly important in hot weather. Refer to Section 6.4.6 on curing.

6.3.5 Cold Weather Application (Above 45° F)

6.3.5.1 Do not apply mortars when ambient temperatures are expected to fall below 45 °F or 7° C within 72 hours of placement. Both ambient and substrate temperatures must be at least 45° F or 7° C at the time of placement.

6.3.5.2 Low substrate and ambient temperatures slow down rate of set and strength development. At temperatures below 45° F or 7° C, warm the material, water and substrate. Properly ventilate the area when heating. Protect the new liner from freezing.

6.3.6 Curing/Finishing: Use an ASTM C309 conforming curing compound such as Cor+Gard Cure N' Seal or CS Identifier as required in the standard.

7. Submittals

7.1 All Submittals shall conform to the requirements of the Contract document.

7.2 In addition, the following items may be required of the installer to be submitted to the engineer at the sole discretion of the engineer. The Contract shall not be considered complete until receipt and acceptance of the following:

7.2.1 Reference submittals

7.2.1.1 Contractor certification

7.2.1.2 Material certification

7.2.2 Product data

7.2.2.1 Patching and plugging material

7.2.2.2 Cementitious lining material

7.2.2.3 Cementitious lining with admixture

8. Product Handling

8.1 Normal precautions for "nuisance dust" shall be observed. Consult Material Safety Data Sheet for details.

8.2 The Contractor shall carry out his operations in strict accordance with all applicable OSHA standards. Particular attention is drawn to those safety requirements involving entering confined spaces.

9. Quality Assurance and Acceptance

- 9.1 Two test cubes of the material shall be taken randomly as directed by the inspector at owner's expense to verify strengths. Thickness can be verified with a wet gage at any random point of the new interior surface. Any areas found to be thinner than minimum shall immediately receive additional material. Visual inspection should verify a leak-free, uniform appearance.

10. Measurement of Payment

- 10.1 Payment shall be made at the unit price per linear of finished wall for each prescribed thickness.

PROJECT LIST FOR CENTRIFUGALLY CAST CONCRETE PIPE (CCCP) INSTALLATION

- Callaway Road - (1) 60 in. pipe 80 ft. long
- Coastline Road at Whitewater Creek - (5) 96 in. pipe 80 ft. long
- Dogwood Trail - (2) 72 in pipes 60 ft long
- N. Morning Dove Drive - (2) 84 in. pipe 140 ft. long
- Old Senoia Road - (3) 96 in. pipes 80 ft. long

EXCEPTIONS TO SPECIFICATIONS

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slightly textured appearance and some minor blemishes or faint smudges, particularly near the center and bottom left. The edges of the paper are slightly irregular.

Company Name _____

PRICING SHEET

LOCATION	TOTAL PRICE <u>PER</u> LINEAR FOOT	TOTAL PRICE FOR LOCATION
CALLAWAY ROAD – ONE (1) 60 INCH PIPE, 80 FEET LONG	\$	\$
COASTLINE ROAD AT WHITEWATER CREEK – FIVE (5) 96 INCH PIPES, 80 FEET LONG	\$	\$
DOGWOOD TRAIL – TWO (2) 72 INCH PIPES, 60 FEET LONG	\$	\$
N. MORNING DOVE DRIVE – TWO (2) 84 INCH PIPES, 140 FEET LONG	\$	\$
OLD SENOIA ROAD – THREE (3) 96 INCH PIPES, 80 FEET LONG	\$	\$
TOTAL BID PRICE, IF AWARDED ALL FIVE LOCATIONS		\$
LIST DISCOUNT AMOUNT, IF AWARDED TWO OR MORE LOCATIONS, (IF ANY)		\$

THE TOTAL PRICE SHALL INCLUDE: INSTALLATION, PIPE, EQUIPMENT, PARTS, LABOR, ETC. AND ANY OTHER APPLICABLE CHARGES. NO ADDITIONAL CHARGES WILL BE ACCEPTED AFTER THE BID OPENING.

STATE START TIME AFTER NOTICE TO PROCEED _____ DAYS.

STATE COMPLETION TIME AFTER NOTICE TO PROCEED _____ DAYS.

STATE PAYMENT TERMS _____.

STATE LENGTH AND NATURE OF WARRANTY _____

COMPANY'S NAME _____

BIDDER'S QUALIFICATION SHEET – BID #854 Centrifugally Pipe Installation

Please list three (3) references of current or very recent customers who can verify the quality of service your company provides. Projects of similar size and scope are preferred.

REFERENCE ONE

Government/Company Name _____

City _____

Contact Person and Title _____

Phone _____ Contract Period _____

Scope of Work _____

REFERENCE TWO

Government/Company Name _____

City _____

Contact Person and Title _____

Phone _____ Contract Period _____

Scope of Work _____

REFERENCE THREE

Government/Company Name _____

City _____

Contact Person and Title _____

Phone _____ Contract Period _____

Scope of Work _____

INFORMATION PAGE

Company_____

Authorized Representative_____
(Print or Type)

Authorized Representative_____
(Signature)

Title_____

Physical Address Of Business_____

Mailing Address(If Different)_____

Telephone Number: () _____

Cellular Number: () _____

Fax Number: () _____

Email Address: _____

If you do not submit a bid, please indicate in writing your reason(s) why and return that information to the Purchasing Department. Failure to do so may cause your company's name to be removed from the bidders list, as the information is needed for our files.